

CLAIMS

1. The use of surfactant mixtures containing alkyl and alkenyl oligoglycosides (APGs) corresponding to formula (I):



in which R is an alkyl and/or alkenyl group containing 4 to 22 carbon atoms, G is a sugar unit containing 5 or 6 carbon atoms and p is a number of 1 to 10,

in admixture with free fatty acids containing 6 to 22 carbon atoms as an additive in drilling fluids.

2. The use claimed in claim 1, characterized in that the fatty acid used correspond to the general formula $\text{R}'\text{-COOH}$, in which R' is a saturated or unsaturated, branched or unbranched alkyl or alkenyl group containing 11 to 21 carbon atoms.

3. The use claimed in claims 1 and 2, characterized in that mixtures of APGs corresponding to formula (I) with unsaturated fatty acids corresponding to the formula $\text{R}'\text{-COOH}$ from claim 2 are used.

4. The use claimed in claims 1 to 3, characterized in that the free fatty acids are used in a ratio by weight to the APGs of formula (I) of ca. 1:1, preferably 2:1 to at most 10:1.

5. The use claimed in claims 1 to 4, characterized in that the surfactant mixtures are used as emulsifiers in drilling fluids which contain at least one aqueous phase and one nonaqueous phase.

6. The use claimed in claims 1 to 5, characterized in that the surfactant mixtures are used as emulsifiers in drilling fluids which form a water-in-oil or oil-in-water emulsion.

7. The use claimed in claims 1 to 6, characterized in that the surfactant mixtures are used in water-based emulsion drilling fluids which contain esters of saturated or unsaturated, branched or unbranched

monocarboxylic acids containing 1 to 24 carbon atoms with monohydric, linear or branched, saturated or unsaturated alcohols containing 1 to 24 carbon atoms as the oil phase.

8. The use claimed in claims 1 to 7, characterized in that the surfactant mixtures are used in water-based emulsion drilling fluids which contain linear α -olefins, internal olefins and/or paraffins as the oil phase.

9. The use of surfactant mixtures claimed in claims 1 to 8, characterized in that the surfactant mixtures are used in quantities of 0.1 to 25% by weight, preferably 0.1 to 10% by weight and more particularly 0.1 to 5% by weight, based on the weight of the drilling fluid.

10. The use of surfactant mixtures claimed in claim 1 as emulsifiers for invert drilling fluids.

11. A well servicing composition flowable and pumpable at 5 to 20°C which is based on a continuous oil phase in admixture with a limited quantity of a disperse aqueous phase (w/o invert type) and contains optionally dissolved and/or dispersed standard auxiliaries, such as thickeners, fluid loss additives, wetting agents, fine-particle weighting agents, salts, alkali reserves and/or biocides, characterized in that it contains the surfactant mixtures according to claim 1 as emulsifiers.

12. A well servicing composition as claimed in claim 11, characterized in that the oil phase is selected from the classes

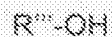
(a) carboxylic acid esters corresponding to formula (II):



where R' is a saturated or unsaturated, linear or branched C₅₋₂₃ alkyl group and R'' is a C₁₋₂₂ alkyl group which may be saturated or unsaturated, linear or branched,

(b) linear or branched C₆₋₃₀ olefins.

- (c) water-insoluble, symmetrical or nonsymmetrical ethers of monohydric alcohols of natural or synthetic origin which may contain 1 to 24 carbon atoms,
- (d) water-insoluble alcohols corresponding to formula (III):



(III)

where R''' is a saturated, unsaturated, linear or branched C_{8-24} alkyl group,

- (e) carbonic acid diesters,
- (f) paraffins,
- (g) acetals.